

State of California
The Natural Resources Agency
Department of Water Resources

California Water Plan

Update 2013

Investing in Innovation and Infrastructure

Volume 1 — The Strategic Plan

PUBLIC REVIEW DRAFT

October 2013

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Governor
State of California

John Laird
Secretary for Resources
The Natural Resources Agency

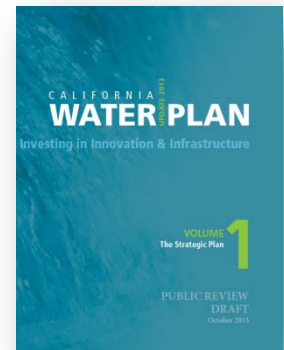
Mark Cowin
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Navigating Water Plan Update 2013

California Water Plan Update 2013 (Update 2013) provides a wide range of information, from a detailed description of California’s current and potential future conditions to a “Roadmap For Action” intended to achieve desired benefits and outcomes. Update 2013 applies at statewide, regional, and local scales, and serves to advise a diverse audience, including elected officials, planners and resource managers, tribal governments and communities, academia, and the general public. The plan is organized in five volumes. Volumes 1, 2, and 3 are outlined below. The *Highlights* booklet, Volume 4, *Reference Guide*, and Volume 5, *Technical Guide*, will be released with the Final Update 2013 document in March 2014.

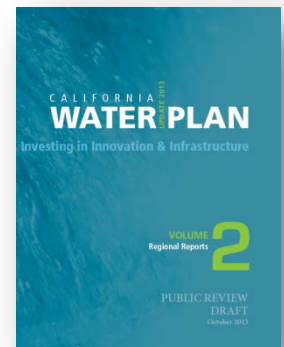
Volume 1, The Strategic Plan

- Executive summary.
- Call to action, new features for Update 2013, progress toward implementation.
- Update 2013 themes.
- Comprehensive picture of current water, flood and environmental conditions.
- Strengthening government alignment and water governance.
- Planning (data, analysis and public outreach) in the face of uncertainty.
- Framework for financing the California Water Plan.
- Roadmap for Action – Vision, mission, goals, principles, objectives & actions.



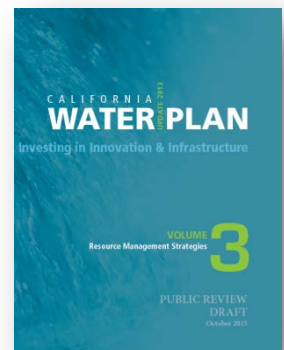
Volume 2, Regional Reports

- State of the region — watersheds, groundwater aquifers, ecosystems floods, climate, demographics, land use, water supplies and uses, governance.
- Current relationships with other regions and states.
- Accomplishments and challenges.
- Looking to the future — future water demands, resource management strategies, climate change adaptation.



Volume 3, Resource Management Strategies

- Integrated Water Management Toolbox
30+ management strategies to:
- Reduce water demand.
 - Increase water supply.
 - Improve water quality.
 - Practice resource stewardship.
 - Improve flood management.
 - People & water.



**[Placeholder: Director’s Foreword will appear
in the Final Draft of Update 2013
on this page.]**

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This front matter (of the public review draft) is a placeholder. The final *California Water Plan Update 2013* will show the complete list of those whose invaluable work and participation made possible this California Water Plan update.

Developing the water plan requires the knowledge, work, expertise, research, and technical advice of scores of individuals and groups — governmental, private, and nonprofit — representing multiple disciplines and many State agencies; federal, tribal, regional, and local interests; and environmental, agricultural, and urban concerns.

**Prepared under the direction of Kamyar Guivetchi and the following
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Highlights

A booklet highlighting information from the *California Water Plan Update 2013* (Update 2013) volumes. (“Highlights” will be drafted and distributed for public comment between the Public Review Draft and the Final Update 2013.)

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- Chapter 2. Imperative to Invest in Innovation and Infrastructure
- Chapter 3. California Water Today
- Chapter 4. Strengthening Government Alignment
- Chapter 5. Managing an Uncertain Future
- Chapter 6. Integrated Data and Analysis: Informed and Transparent Decision-Making
- Chapter 7. Finance Planning Framework
- Chapter 8. Roadmap For Action

Volume 2 **Regional Reports**

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San Francisco Bay Hydrologic Region
Central Coast Hydrologic Region
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Volume 4 Reference Guide

Under development; will be completed for Final Update 2013.

Volume 5 Technical Guide

Under development; will be completed for Final Update 2013.

Acronyms and Abbreviations

AB	Assembly Bill
ACEEE	American Council for an Energy-Efficient Economy
AFTF	Alluvial Fan Task Force
ARB	California Air Resources Board
ARRA	American Recovery and Reinvestment Act of 2009
ASCE	American Society of Civil Engineers
AWE	Alliance for Water Efficiency
BDCP	Bay Delta Conservation Plan
BLM	U.S. Bureau of Land Management
BMPs	best management practices
Cal EMA	California Emergency Management Agency
Cal OES	California Governor's Office of Emergency Services
Cal-HR	California Department of Human Resources
California State Parks	California Department of Parks and Recreation
CALVIN	California Value Integrated Network Model
CalWEC	California Water and Energy Coalition
CalWEP	California Water and Energy Program
CASGEM	California Statewide Groundwater Elevation Monitoring
CAT	Climate Action Team
CBC	California Biodiversity Council
CCP	Center for Collaborative Policy
CCST	California Council for Science and Technology
CDPH	California Department of Public Health
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, & Liability Act
CII	Commercial, Institutional, and Industrial
CLCA	California Land Conservation Act
COPA	California Ocean Protection Act
CORP	California Outdoor Recreation Plan
CPUC	California Public Utilities Commission
CTP	California Transportation Plan
CUWCC	California Urban Water Conservation Council
CVFPP	Central Valley Flood Protection Plan
CVP	Central Valley Project
CVPM	Central Valley Project Model
CWC	California Water Code
CWEMF	California Water and Environmental Modeling Forum
CWP	California Water Plan
CWSIF	California Water Sustainability Indicators Framework
Delta	Sacramento-San Joaquin Delta
DFW	California Department of Fish and Wildlife
DOD	Department of Defense
DOI	U.S. Department of the Interior
DRMS 2009	Delta Risk Management Strategy Phase I
DRMS	Delta Risk Management Strategy
DSS	Decision Support System
DST	Decision Support Tool
DTSC	Department of Toxic Substances Control
DWR	California Department of Water Resources

EGPR	Environmental Goals and Policy Report
EJ	environmental justice
EM	emergency management
EPA	U.S. Environmental Protection Agency
EPRI	Electric Power Research Institute
FAN	Water Plan Federal Agency Network
FCSSR	Flood Control System Status Report
FEMA	Federal Emergency Management Agency
Framework	Finance Planning Framework
FRAP	Fire and Resource Assessment Program
FY	fiscal year
GGERP	GHG Emissions Reduction Plan
GHG	greenhouse gas
GIS	Geographic Information System
GO	general obligation
GPCD	gallons per capita per day
GRACE	Gravity Recovery and Climate Experiment
ICWT	International Center for Water Technology
IPCC	Intergovernmental Panel on Climate Change
IRWM	integrated regional water management
ISI forecasting	interannual climate forecasting
IWM	integrated water management
IWRIS	Integrated Water Resources Information System
KSA	knowledge, skills, and abilities
LEED	Leadership in Energy & Environmental Design
LID	low-impact development
LPA	local primacy agency
maf	million acre-feet
MCL	maximum contaminant level
MPa	megapascal
MTBE	Methyl tertiary-butyl ether
NASA	National Aeronautics and Space Administration
NRC	National Research Council
NRCSUSDA	Natural Resources Conservation Service
NRDC	Natural Resources Defense Council
NWIS	National Water Information System
NWQI	National Water Quality Initiative
NWQMC	National Water Quality Monitoring Council
O&M	operations and maintenance
OPC	Ocean Protection Council
OPR	California Governor's Office of Planning and Research
OWOW2.0	One Water One Watershed 2.0
OWTS	onsite wastewater treatment systems
PIER	Public Interest Energy Research Program
POE	point-of-entry
POU	point-of-use
psig	pounds per square inch gauge
RAP	Regional Acceptance Process
RCD	Resource Conservation District
RCRA	Resource Conservation and Recovery Act
RDM	Robust Decision-Making
RMS	resource management strategy

RWQCB	Regional Water Quality Control Board
SAWPA	Santa Ana Watershed Project Authority
SB	Senate Bill
SBA	U.S. Small Business Administration
SCG	Strategic Growth Council
SCS	Sustainable Communities Strategy
SHMP 2010	Enhanced State of California Multi-Hazard Mitigation Plan
SHMP	State Multi-Hazard Mitigation Plan
SLR	sea level rise
SMP	Suisun Marsh Habitat Management, Preservation, and Restoration Plan
SPFC	State Plan of Flood Control
STORET	STOrage and RETrieval Data Warehouse
SVP	Shared Vision Planning
SWAMP	Surface Water Ambient Monitoring Program
SWAN	Statewide Water Analysis Network
SWP	State Water Project
SWRCB	State Water Resources Control Board
taf	thousand acre-feet
TMDL	total maximum daily load
UC Davis	University of California, Davis
Update 2005	California Water Plan Update 2005
Update 2009	California Water Plan Update 2009
Update 2013	California Water Plan Update 2013
USACE	U.S. Army Corps of Engineers
USBR	U.S. Bureau of Reclamation
USDA	U.S. Department of Agriculture
USDA Forest Service	U.S. Department of Agriculture Forest Service
UWMP	Urban Water Management Plan
Water PIE	Water Planning Information Exchange
WaterSMART	Sustain and Manage America's Resources for Tomorrow
WDR	waste discharge requirement
WEAP	Water Evaluation and Planning
WERF	Water Environment Research Foundation
WETCAT	Water Energy Team of the Governor's Climate Action Team
WETCAT	Water-Energy Team of the Climate Action Team
WGA	Western Governors' Association
WQP	Water Quality Portal
WRDA	Water Resources Development Act
WRI	Water Resources Institute
WSWC	Western States Water Council